

## DERWENT PUBLICATIONS LTD.

83-790688/42 B04 D16 J04 K08

INSP 12.03.82

INST PASTEUR (CNRS)

\*FR 2523-311-A

12.03.82-FR-004247 (16.09.83) G01n 33/66 C07g 07/00

Aq.- soluble albumin-ligand coupling product - for use in immunoassays

E(4-B2C, 4-B2D, 4-B4A, 4-B4C, 4-B4D, 4-B4F, 5-A2, 11-G7A, 11-C7B, 12-K4) D(5-A1, 5-H) J(4-B1) K(9-B, 9-E) 001

Coupling with albumin increases sensitivity, esp. in the case of enzyme immunoassays for antigens, haptens or antibodies.

G83-102376

Issued in Week 8343.

Full Patentes: Inst. Pasteur; Cent. Nat. Rech. Scientifique.

(A) an albumin/specific ligand coupling prod. which is soluble in aq. media is new.

(B) Immunoassay of a biological substance (I) comprises (a) immobilising a substance (II) having binding affinity for (I), (b) incubating with a medium contg. (I), (c) washing the resulting reaction mixt. and incubating with an albumin/specific ligand coupling prod. in soln. in an aq. medium, where the ligand is capable of reacting specifically with (I) or (II), (d) washing the resulting reaction mixt. and incubating with a labelled anti-albumin antibody, and (e) detecting the label.

(C) An immunoassay test kit comprises an albumin/specific ligand coupling prod., a labelled anti-albumin antibody and reagents for detecting the label.

## ADVANTAGES

## DETAILS

The specific ligand may be an antigen, hapten, antibody, hormone, hormone receptor, enzyme inhibitor or lectin. It may be coupled with human or animal albumin (esp. BSA) using glutaraldehyde or by 2-stage benzoquinone activation and coupling.

The label may be an enzyme, a radioactive material, a fluorochrome, a particulate material or erythrocytes.

## EXAMPLE

A BSA/anti-IgE reagent was prepd. by isolating sheep anti-rabbit Ig antibodies by affinity chromatography, dialysing the antibodies and BSA against phosphate buffer (0.1 M, pH 6.6) at 4°C overnight, and mixing 3 mg of the dialysed antibody with 6 mg of the dialysed BSA in 0.1M phosphate buffer. The mixt. (1 ml) was treated with 0.2 ml of 1% aq. glutaraldehyde and incubated at room temp. for 3 hr.

The prod. was used in a sandwich-type enzyme immunoassay for human IgE. (18pp367EDDwgNo0/0).

FR2523311-A

83-795400/43

B07 P34

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18.05.82-US-379480 (+ US-353432) (08.09.83) A61m-29

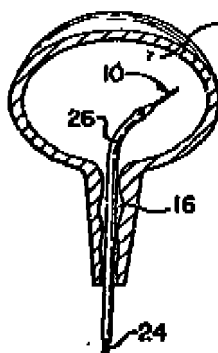
Urological instrument esp. retentive balloon catheter - inserted by sliding over filiform

B(11-C4B)

002

Pref. the leading section of the filiform (10) is curved as shown.

The filiform may be inserted while a stylet wire extends axially within the filiform to stiffen it. Similarly, a stylet tube (24) is placed inside the drainage catheter while it is being slid along the pre-positioned filiform. (25pp295GHDwgNo5/6)



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A urological instrument (esp. a catheter) is inserted into the bladder by first advancing a filiform through the urethra, the filiform having smoothly contoured leading end with a lateral opening. Urine flows through this opening and into the filiform to indicate when the leading end of the filiform has entered the bladder.

The urological instrument has an internal dia. greater than the external dia. of the filiform to permit the instrument to be slid along the filiform. The instrument may have an inflatable balloon collar which retains the instrument in the bladder; the filiform can then be withdrawn.

## ADVANTAGE

The correct positioning of the filiform is indicated by the drainage of urine.

## EMBODIMENT

Bladder (18) has the drainage catheter (26) in position.

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B03 (B02)

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03.03.82-JP-034168 (08.09.83) A61k-31/41 C07d-271/06 C07d-413/04 C07d-417/10 C07d-471/04 C07d-491/05

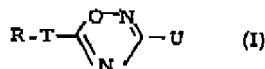
5-Aralkyl-1,2,4-oxadiazole derivs. - are antiinflammatories, analgesics and antipyretics

B(6-H, 7-E4, 12-D1, 12-D7, 12-D8) 3

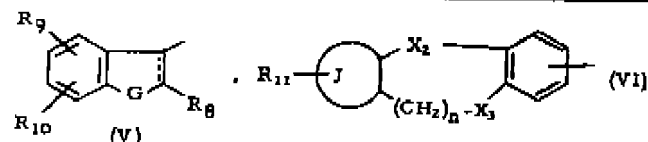
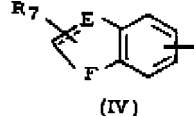
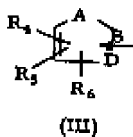
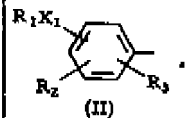
003

C83-102382

5-Aralkyl-1,2,4-oxadiazole derivs. of the formula (I) and their salts are new



(R is a gp. of formula (II), (III), (IV) or (V):

R<sub>1</sub> is alkyl, alkenyl, cycloalkyl, cycloalkenyl, opt. subst. phenyl or heterocyclyl;R<sub>2</sub> and R<sub>3</sub> are each H, halo, amino, OH, alkoxy or alkyl;X<sub>1</sub> is -CH<sub>2</sub>-, -CH<sub>2</sub>O-, -CO-, -O-, -S-, -NH or a single bond;R<sub>4</sub> and R<sub>5</sub> are H alkyl or opt. subst. phenyl;R<sub>6</sub> is opt. subst. phenyl or opt. subst. benzoyl;

A is N, O or S;

B and D are each C or N;

R<sub>7</sub> is alkyl, lower alkoxy or opt. subst. phenyl;

E is N or C;

F is O, S or C or C=C or C=N, broken lines indicate opt. bonds;

R<sub>8</sub> is H or lower alkyl;

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$R_9$  is H, halo or alkoxy;

$R_{10}$  is H, cyclohexyl or substd, benzoyl;

G is methylene, substd, benzoylimino, cinnamoylimino or substd, styrylidene, provided that G is  $-\text{CH}_2-$  when  $R_{10}$  is cyclohexyl or substd, benzoyl;

$R_{11}$  is H, halogen, alkyl or alkoxy;

$X_2$  and  $X_3$  are different and are  $-\text{CH}_2-$ ,  $-\text{CO}-$ ,  $-\text{O}-$ ,  $-\text{S}-$ ,  $-\text{N}(\text{R}')-$  or single bond;

J is a benzene, pyridine, thiophene, furan or pyrrole ring; n is 0 or 1;

T is alkylene or alkenylene each opt. carrying an oxo, OH or lower alkoxy substit., or T is a single bond;

U is H, alkyl, alkenyl, polyhaloalkyl, cycloalkyl, cycloalkenyl, opt. substd, phenyl, pyridyl,  $-\text{T}_1$ ,  $-\text{R}_{12}$  or  $-\text{R}_{13}-\text{X}_4-\text{T}_1$ ;

$R_{12}$  is halogen, OH, SH, alkylsulphonyl, dialkoxymethyl, alkoxy-carbonyl, COOH, sulpho, CN,  $\text{NR}'\text{R}''$  or  $-\text{SR}_1\text{R}_1'\text{X}$ ;

$\text{R}'$  and  $\text{R}''$  are H, alkyl or hydroxy-alkyl;

or  $\text{NR}'\text{R}''$  forms a 5 or 6 membered opt. unsatd. heterocyclic ring, which may contain an O or another N atom, or forms a quaternary ammonium salt or N-oxide;

$\text{R}_1'$  or  $\text{R}_1''$  are alkyl or alkenyl;

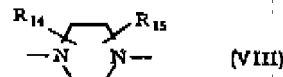
X is negative monovalent ion;

$\text{T}_1$  is alkylene or alkenylene, opt. bearing an OXO or OH substit.;

$R_{13}$  is alkyl, alkenyl, hydroxyalkyl, acyloxyalkyl, amino alkyl, acylaminoalkyl, cycloalkyl, cycloalkenyl, opt. substd, phenyl, phenyl-alkyl, heterocyclyl, heterocyclyl-alkyl, acyl, acylthioalkanoyl, mercaptoalkanoyl, alkoxy-carbonyl, alkylsulphonyl,  $-\text{CONR}_2\text{R}_2'$  or  $\text{SO}_2\text{NR}_2\text{R}_2'$ ;

$R_2'$  and  $R_2''$  are each H, alkyl or hydroxyalkyl;

$X_4$  is  $-\text{O}-$ ,  $-\text{S}-$ ,  $-\text{NH}-$ , a single bond or a gp. of formula (VIII)



$R_{14}$  and  $R_{15}$  are each H or alkyl.

All alkyl, alkenyl, alkylene, alkenylene, cycloalkyl and cycloalkenyl gps. are 'lower' i.e.  $\leq 6\text{C}$ ; and cycloalkyl gps. may be oxo- or hydroxy-substd.,

#### USE

(I) are antiinflammatories, analgesics and antipyretics without ulcerogenic side effects.

#### PREPARATION

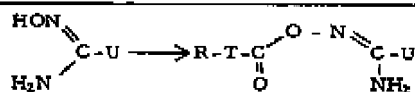
By several methods including:-

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1)  $\text{R-T-COOH}$

(or reactive ester)

(II)



(I)

2)  $\text{R-T-CN} + \text{O} \leftarrow \text{N} \equiv \text{C-U}_1 \longrightarrow$  (I;  $\text{U} = \text{U}_1$ )

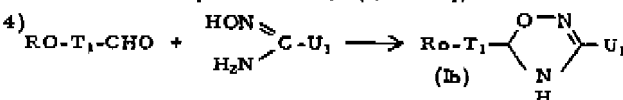
(V)

( $\text{U}_1$  is alkyl, alkenyl, polyhaloalkyl, cycloalkyl, cycloalkenyl, phenyl, substd. phenyl, pyridyl or  $\text{R}_{16}-\text{T}_2$ ;

$\text{T}_2$  is alkylene or alkenylene;

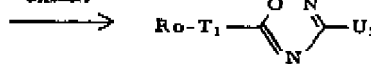
$\text{R}_{16}$  is halogen, alkoxy, alkenyloxy, dialkoxy) methyl carbonyl, cycloalkyl, phenyl, substd, phenyl, pyridyl,  $\text{NR}'\text{R}''$ ,  $\text{CONR}_2\text{R}_2'$  or  $-\text{SO}_2\text{NR}_2\text{R}_2'$ );

3)  $\text{R-T-CONHCSU}_1 \xrightarrow{\text{H}_2\text{NOH}} \text{(I; U = U}_1\text{)}$



(Ib)

oxida.



(Ro is same as R provided  $\text{X}_1$ ,  $\text{X}_2$  and  $\text{X}_3$  are not  $-\text{S}-$ )

#### EXAMPLE

A mixt. of 2-(2-fluoro-4-biphenyl)propionic acid (2.44 g), dry benzene (50 ml) and thionyl chloride (2.38 g) was refluxed for 2 hr., concd. under reduced pressure and residue dissolved in dry benzene (5 ml). The soln. was added dropwise with cooling to a soln. of acetamidoxime (0.815 g) in dry pyridine and stirred at room temp. and refluxed for 5 hr. The solvent was evapd. under reduced pressure and the residue partitioned between benzene (100 ml) and 10%  $\text{Na}_2\text{CO}_3$  soln. (20 ml). The organic phase was washed, dried and evapd. and the residue chromatographed on silica gel and eluted with benzene to give 5-(3-fluoro-4-phenyl- $\alpha$ -methylbenzyl)-3-methyl-1,2,4-oxadiazole which was recrystallised from n-hexane to give product (m.p. 55-56°C). (99pp916EDDwgNo0/0).

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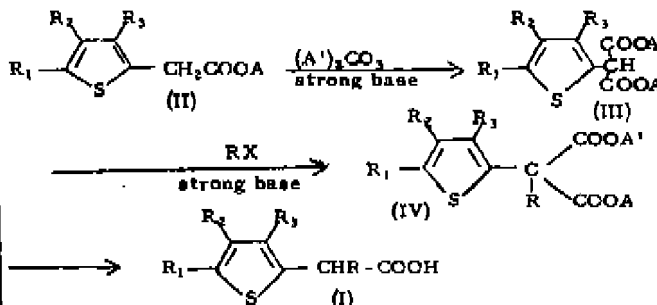
\*BE 896-439-A

03.12.82-FR-020271 (12.10.83) C07d

Alpha-alkyl 2-thienyl acetic acid derivs. prodn. - by reacting 2-thienyl acetic acid with alkyl carbonate alkylating agent, then decarboxylation

C83-102391

(1) Prod. of  $\alpha$ -alkyl- 2-thienylacetic acid derivs. of formula (I) by the following process is new:



B(7-B1)

004

(R is 1-4C alkyl;

$\text{R}_1$ ,  $\text{R}_2$  and  $\text{R}_3$  are each H, 1-4C alkyl or halo;

A and A' are 1-4C alkyl; and

X is a functional gp).

(2) The 2-(1,1-di(alkoxycarbonyl)-alkyl)-thiophene intermediates of formula (IV) are new cpds.

#### USE

(I) are intermediates for pharmaceuticals, esp. anti-inflammatories.

#### ADVANTAGES

The process uses fewer stages than known methods.

#### DETAILS

The first stage is pref. in presence of Na ethoxide (esp. 1-1.5 equiv. per mole (II)) at 90-135°C. Reaction of (IV) is esp. also in presence of Na ethoxide, at 50-80°C.

The final stage is by hydrolysis with base, esp. at 50°C to reflux, then acidification with HCl.

The method is esp. used to make (I) where  $\text{R}_1 = \text{R}_2 = \text{R}_3 = \text{H}$  and R = methyl, cpd. (Ia).

#### EXAMPLE

BE 896439 -A